

EXHIBIT H

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The IEEE Standard Dictionary of Electrical and Electronics Terms

Sixth Edition



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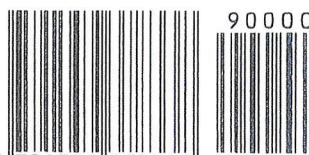
Sixth Edition

Standards Coordinating Committee 10, Terms and Definitions
Jane Radatz, Chair

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pro beam system

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process

pro beam system Tunnel lighting system or luminaires having a light distribution that is greater in the direction of travel.

(RL) C136.27-1996

probe coil A coil (air or magnetic material core) used to sense an alternating magnetic field.

(COM) 1027-1996

probe loading The effect of a probe on a network, for example, on a slotted line, the loading represented by a shunt admittance or a discontinuity described by a reflection coefficient. *See also:* measurement system.

(IM) [40]

probe pickup, residual *See:* residual probe pickup.

probing *See:* linear probing; random probing; uniform probing.

problem *See:* benchmark problem.

problem board In an analog computer, a removable frame of receptacles for patch cords and plugs that offers a means for interconnecting the inputs and outputs of computing elements. *See also:* patch board; patch panel.

(C) 165-1977w, 610.10-1994

problem check (analog computer) One or more tests used to assist in obtaining the correct machine solution to a problem. Static check consists of one or more tests of computing elements, their interconnections, or both, performed under static conditions. Dynamic check consists of one or more tests of computing elements, their interconnections, or both, performed under dynamic conditions. Rate test is a test that verifies that the time constants of the integrators are those selected. This term also refers to the computer-control state that implements the rate test previously described. Dynamic problem check is any dynamic check used to ascertain the correct performance of some or all of the computer components. *See also:* computer-control state.

(C) 165-1977w

Problem Descriptor System (PDS/MaGen) A programming language useful in a wide variety of operations research applications, and designed to facilitate the generation of matrices and reports for mathematical programming systems.

(C) 610.13-1993

problem-oriented language (1) (computers) A programming language designed for the convenient expression of a given class of problems.

(C/MIL) [2], [20], [85]

(2) **(software)** A programming language designed for the solution of a given class of problems. Examples are list processing languages, information retrieval languages, simulation languages.

(C) 610.12-1990, 610.13-1993

problem state In the operation of a computer system, a state in which programs other than the supervisory program can execute. *Synonyms:* slave state; user state. *Contrast:* supervisor state.

(C) 610.12-1990

problem variable *See:* scale factor.

procedural cohesion (software) A type of cohesion in which the tasks performed by a software module all contribute to a given program procedure, such as an iteration or decision process. *Contrast:* coincidental cohesion; communicational cohesion; functional cohesion; logical cohesion; sequential cohesion; temporal cohesion.

(C) 610.12-1990

procedural language (1) (software) A programming language in which the user states a specific set of instructions that the computer must perform in a given sequence. All widely-used programming languages are of this type. *Synonym:* procedure-oriented language. *Contrast:* nonprocedural language. *See also:* algebraic language; algorithmic language; list processing language; logic programming language.

(C) 610.12-1990

(2) A computer language in which the user states a specific set of instructions that the computer must perform in a given sequence. Examples include BASIC, COBOL, FORTRAN, and Pascal. *Synonym:* procedure-oriented language. *Contrast:* nonprocedural language.

(C) 610.13-1993

procedural programming language (software unit testing) A computer programming language used to express the sequence of operations to be performed by a computer (for example, COBOL). *See also:* nonprocedural programming language.

(C/SE) 1008-1987r

procedure (1) (computers) The course of action taken for the solution of a problem.

(C) [20], [85]

(2) **(nuclear power quality assurance)** A document that specifies or describes how an activity is to be performed.

(PE) [124]

(3) (A) **(software)** A course of action to be taken to perform a given task. (B) **(software)** A written description of a course of action as in definition "A;" for example, a documented test procedure. (C) **(software)** A portion of a computer program that is named and that performs a specific action.

(C) 610.12-1990

(4) **(software user documentation)** Ordered series of instructions that a user follows to do one or more tasks.

(C/SE) 1063-1987r

(5) **(scheme programming language)** A parameterized program fragment, called a subroutine or function in some programming languages.

(C/MM) 1178-1990r

procedure-oriented language (1) (computers) A programming language designed for the convenient expression of procedures used in the solution of a wide class of problems.

(C/MIL) [2], [20], [85]

(2) **(software)** *See also:* procedural language.

(C) 610.12-1990

process (1) (automatic control) The collective functions performed in and by the equipment in which a variable is to be controlled. *Synonym:* controlled system.

(PE) [3]

(2) (A) **(software)** A sequence of steps performed for a given purpose; for example, the software development process.

(B) **(software)** An executable unit managed by an operating system scheduler. *See also:* job; task. (C) **(software)** To perform operations on data.

(C) 610.12-1990

(3) An address space and one or more threads of control that execute within that address space, and their required system resources.

(C/PA) 14252-1996

(4) A sequence of tasks, actions, or activities, including the transition criteria for progressing from one to the next, that bring about a result.

(C/SE) 1220-1994

(5) An address space and the single thread of control that executes within that address space, and its required system resources. A process is created by another process issuing the POSIX.1 *fork()* function. The process that issues *fork()* is known as the parent process, and the new process created by the *fork()* is known as the child process. The attributes of processes required by POSIX.2 form a subset of those in POSIX.1.

(C/PA) 9945-2-1993

(6) An address space with one or more threads executing within that address space, and the required system resources for those threads. A process is created by another process issuing the *fork()* function. The process that issues *fork()* is known as the parent process, and the new process created by the *fork()* is known as the child process. Many of the system resources defined by this part of ISO/IEC 9945 are shared among all of the threads within a process. These include the process ID; the parent process ID; the process group ID; the session membership; the real, effective and saved-set user ID; the real, effective and saved-set group ID; the supplementary group IDs; the current working directory; the root directory; the file mode creation mask; and file descriptors.

(C/PA) 9945-1-1996

(7) An address space, and the program (including any Ada tasks contained within the program) executing within that address space, and its required system resources. A process is created by another process with procedures `POSIX.Process.Primitives.Start.Process`, `POSIX.Process.Primitives.Start.Process.Search`, or the function `POSIX.Unsafe.Process.Primitives.Fork`. The process that issues `Start.Process`, `Start.Process.Search`, or `Fork` is known as the parent process, and the newly created process is the child process.

(C/PA) 1003.5-1992

(8) An address space, a single thread of control that executes within that address space, and its required system resources. On a system that implements threads, a process is redefined to consist of an address space with one or more threads ex-

cuting within that address space and their required system resources. *Note:* The term process is used in contrast to "system process," or the OSI usage of the term "application process."

(C/PA) 1224.2-1993, 1326.2-1993, 1327.2-1993, 1328.2-1993

(9) An organized set of activities performed for a given purpose; for example, the software development process.

(C/SE) J-STD-016-1995

(10) A unit of activity characterized by a single sequential thread of execution, a current state, and an associated set of system resources.

(C/MM) 855-1990

(11) *See also:* POSIX process. (C/PA) 1003.5b-1995

Process A function that must be performed in the software life cycle. A Process is composed of Activities.

(C/SE) 1074-1995

processable scored card A scored card including at least one separable part that can be processed after separation. *See also:* stub card.

(C) 610.10-1994

Process and Experiment Automation Realtime Language (PEARL) A general-purpose, high-order language designed to meet the requirements of real-time programming in process and experiment automation.

(C) 610.13-1993

Process Architect The person or group that manages the implementation of the Standard in an organization.

(C/SE) 1074.1-1995

process bound *See:* compute-bound.

process control (1) (electric pipe heating systems) The use of electric pipe heating systems to increase or maintain, or both, the temperature of fluids (or processes) in mechanical piping systems including pipes, pumps, tanks, instrumentation in nuclear power generating stations.

(PE) 622A-1984r

(2) **(automatic control)** Control imposed upon physical or chemical changes in a material. *See also:* control system, feedback.

(PE) [3]

(3) **(electric heat tracing systems)** The use of electric heat tracing systems to increase or maintain, or both, the temperature of fluids (or processes) in mechanical piping systems including pipes, pumps, valves, tanks, instrumentation, etc, in power generating stations.

(PE) 622B-1988r

(4) Automatic control in which a computer is used to regulate continuous operations such as chemical processes, military operations, or manufacturing operations. *See also:* numerical control.

(C) 610.2-1987

process equipment (automatic control) Apparatus with which physical or chemical changes in a material are produced. *Synonym:* plant.

(PE) [3]

process group A collection of processes that permits the signaling of related processes. Each process in the system is a member of a process group that is identified by a process group ID. A newly created process joins the process group of its creator.

(C/PA) 1003.5-1992, 1003.5b-1995, 9945-1-1996, 9945-2-1993

process group ID (1) The unique identifier representing a process group during its lifetime. A process group ID is a positive integer that can be contained in a *pid_t*. It shall not be reused by the system until the process group lifetime ends.

(C/PA) 9945-1-1996, 9945-2-1993

(2) A unique value identifying a process group during its lifetime. A process group ID shall not be reused by the system until the process group lifetime ends.

(C/PA) 1003.5-1992, 1003.5b-1995

process group leader (1) A process whose process ID is the same as its process group ID.

(C/PA) 9945-1-1996, 9945-2-1993

(2) A process whose process ID matches the process ID of the process group leader for all members of the process group.

(C/PA) 1003.5-1992

(3) The unique process, within a process group, that created the process group.

(C/PA) 1003.5b-1995

process group lifetime (1) A period of time that begins when a process group is created and ends when the last remaining

process in the group leaves the group, due either to the end of the last process's process lifetime or to the last remaining process calling the *setsid()* or *setpgid()* functions.

(C/PA) 9945-1-1996

(2) A period of time that begins when a process group is created and ends when the last remaining process in the group leaves the group, due either to the end of the process lifetime of the last process or to the last remaining process calling the *Set_Process_Group_ID* procedure.

(C/PA) 1003.5-1992, 1003.5b-1995

process ID (1) The unique identifier representing a process. A process ID is a positive integer that can be contained in a *pid_t*. A process ID shall not be reused by the system until the process lifetime ends. In addition, if there exists a process group whose process group ID is equal to that process ID, the process ID shall not be reused by the system until the process group lifetime ends. A process that is not a system process shall not have a process ID of 1.

(C/PA) 9945-1-1996, 9945-2-1993

(2) A unique value identifying a process during its lifetime. The process ID is defined in the package *POSIX.Process_Identification*. A process ID shall not be reused by the system until the process lifetime ends. In addition, if there exists a process group where the process ID of the process group leader is equal to that process ID, that process ID shall not be reused by the system until the process group lifetime ends. An implementation shall reserve a value of process ID for use by system processes. A process that is not a system process shall not have this process ID.

(C/PA) 1003.5-1992, 1003.5b-1995

processing *See:* data processing; information processing; multiprocessing; parallel processing.

processing cycle A single, complete execution of data processing that is periodically repeated. *Synonym:* data processing cycle. *See also:* annual cycle; daily cycle; monthly cycle; weekly cycle.

(C) 610.2-1987

processing unit A functional unit that consists of one or more processors and their storage. *See also:* central processing unit.

(C) 610.10-1994

process lifetime (1) The period of time that begins when a process is created and ends when its process ID is returned to the system. After a process is created with a *fork()* function, it is considered active. At least one thread of control and the address space exist until it terminates. It then enters an inactive state where certain resources may be returned to the system, although some resources, such as the process ID, are still in use. When another process executes a *wait()* or *waitpid()* function for an inactive process, the remaining resources are returned to the system. The last resource to be returned to the system is the process ID. At this time, the lifetime of the process ends.

(C/PA) 9945-1-1996

(2) A period of time that begins when a process is created and ends when its process ID is returned to the system. After a process is created, it is considered active. Its threads of control and address space exist until it terminates. It then enters an inactive state where certain resources may be returned to the system, although some resources, such as the process ID, are still in use. When another process executes a *Wait_For_Child_Process* procedure for an inactive process, the remaining resources are returned to the system. The last resource to be returned to the system is the process ID. At this time, the lifetime of the process ends.

(C/PA) 1003.5-1992, 1003.5b-1995

process list An ordered set of runnable processes that all have the same ordinal value for their priority. The ordering of processes on the list is determined by a scheduling policy or policies. The set of process lists includes all runnable processes in the system.

(C/PA) 1003.1b-1993s

process management The direction, control, and coordination or work performed to develop a product or perform a service. Example is quality assurance.

(C) 610.12-1990

process metric A metric used to measure characteristics of the methods, techniques, and tools employed in developing, im-